

PROJECT 10073 RECORD CARD

1. DATE 18 May 64	2. LOCATION Mount Vernon, Virginia	12. CONCLUSIONS <input type="checkbox"/> Was Balloon <input type="checkbox"/> Probably Balloon <input type="checkbox"/> Possibly Balloon <input type="checkbox"/> Was Aircraft <input type="checkbox"/> Probably Aircraft <input type="checkbox"/> Possibly Aircraft <input type="checkbox"/> Was Astronomical <input type="checkbox"/> Probably Astronomical <input type="checkbox"/> Possibly Astronomical <input type="checkbox"/> Other UNIDENTIFIED <input type="checkbox"/> Insufficient Data for Evaluation <input checked="" type="checkbox"/> Unknown
3. DATE-TIME GROUP Local _____ GMT 18/2315Z	4. TYPE OF OBSERVATION <input checked="" type="checkbox"/> Ground-Visual <input type="checkbox"/> Ground-Radar <input type="checkbox"/> Air-Visual <input type="checkbox"/> Air-Intercept Radar	
5. PHOTOS <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. SOURCE m civilian	
7. LENGTH OF OBSERVATION 17 minutes	8. NUMBER OF OBJECTS one/two	9. COURSE West
10. BRIEF SUMMARY OF SIGHTING Small oval obj with white glow brighter than the brightest star visible observed in diameter from the Moon at the moon's 3 o'clock position. Obj gradually moved around moon to 12 o'clock position of moon 3 diameter's length. This motion took 15 mins. Then obj moved to W about 15 diameters of Moon in one min. Then obj grew dim, split in two particles with one being a grey cloud-like followed with BX. No longer visible to naked eye. Obj split in two again and gradually faded. This sequence consumed one min. Total duration 17 min. Sighting at dusk toward setting sun.		11. COMMENTS Possibility of research balloon with pkg breaking. Data not sufficient to support this evaluation. Case regarded as UNIDENTIFIED. (Balloon ruptured against wind) OT: NATION

*Identification

WASHINGTON, D. C.
(STIRLING, VA.) LAT. 38° 50' N LONG. 77° 23' W
RAWIN WERT-60 ORIENTATION 360=S
OBSERVATION POINT 65 meters ABOVE SEA LEVEL

U.S. DEPARTMENT OF COMMERCE

WEATHER BUREAU

WINDS-ALOFT COMPUTATION SHEET
(LANDSTATION FORM)

WBAN-20

	Year
Actual time 7:14 P.M.	1961
Scheduled (G.M.T.)	1964

Ascension No.

Type of balloon 1000

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.) 30 gram 100 gram	Rowin ht. above surface (m.)	Elevation angle °		Distance from observation point (m.)	Azimuth angle °	Orientation, 360° = South		Rawinsonde Con- tact	Pressure (mb.)
			Observed	Smoothed			Direction ° 360° = N.	Speed (m.p.s.)		
			Minute	Minute			sfc. (CALM)	—		
216 350	1	350	35.6		490	307.2	1	320	9.5	5 1010
414 670	2	700	31.3		1150	320.1	2	334	9.7	10 935
612 980	3	1010	31.3		1650	326.5	3	345	8.7	15 814
801 1285	4	1400	32.8		2160	332.3	4	344	1.8	20 733
990 1585	5	1700	34.6		2450	332.0	5	308	6.0	25 734
1170 1880	6	2100	36.6		2800	326.5	6	286	8.1	30 574
1350 2170	7	2410	37.6		3200	319.5	7	250	8.7	35 615
1530 2455	8	2800	37.2		3700	316.9	8	284	11.5	40 564
1710 2740	9	3160	36.2		4400	305.0	9	283	13.2	45 514
1890 3020	10	3520	35.2		5100	306.5	10	284	12.0	50 466
2070 3300	11	3900	33.9		5800	305.7	11	304	13.5	55 422
2250 3580	12	4300	32.8		6700	315.9	12	314	14.3	60 381
2430 3855	13	4700	32.1		7500	307.4	13	325	16.0	65 342
2610 4130	14	5100	31.0		8500	310.9	14	328	20.9	70 301
2790 4405	15	5500	27.0		9500	312.3	15	314	24.0	75 273
2970 4675	16	5900	27.4		11400	311.5	16	302	23.4	80 242
3150 4945	17	6250	26.2		12700	310.0	17	301	22.0	85 214
3330 5215	18	6700	25.5		14000	309.6	18	311	22.5	90 183
3510 5495	19	7050	24.7		15400	310.0	19			95 154
3690 5755	20		23.7			310.3	20	313	22.0	100 123
3870 6025	21	7810	22.2		18100	310.7	21			105 123
4050 6295	22		22.6			310.2	22	317	25.5	110 123
4230 6565	23	8610	22.0		21200	310.1	23			115 123
4410 6835	24		21.5			310.5	24	317	26.0	120 73
4590 7105	25	9470	21.2		24300	311.1	25			125 51
4770 7375	26		20.6			311.6	26	319	29.0	130 47
4950 7645	27	10170	20.0		27700	312.2	27			135 34
5130 7915	28		19.50			312.6	28	318	20.5	140 21
5310 8185	29	10900	19.05		31400	312.9	29			145 10
5490 8455	30		18.70			313.6	30	330	27.0	150 7
5670 8730	31	11660	18.50		34500	314.4	31			155 19
5850 9005	32		18.35			314.3	32	303	24.0	Pun.
6030 9285	33	12420	18.25		37300	313.5	33			Card No. 1
6210 9565	34		17.80			312.9	34	309	28.0	Type of equipment
6390 9850	35	13220	17.70		40900	312.1	35			sfc. 100 0
6570 10135	36	13670	17.75		42200	312.5	36	304	18.0	150 M. 320 5
6750 10420	37	14070	17.90		43000	312.5	37			300 M. 320 2
6930 10710	38	14520	18.25		47500	312.0	38	284	14.0	0.5 320 1
7110 11005	39		18.00			311.2	39			1.0 342 9
7290 11300	40	15300	18.20		415300	310.9	40	285	13.8	1.5 343 7
7470 11595	41		18.35			310.5	41			2.0 343 1
7650 11890	42	16400	19.20		46500	310.0	42	276	10.5	2.5 280 1
7830 12185	43		19.15			310.5	43			3 284 1
8010 12480	44	17210	19.25		47300	309.0	44	281	6.5	4 284 1
8190 12775	45		20.1			309.0	45			5 226 1
8370 13075	46	18010	20.4		47800	309.0	46	313	5.2	6 226 1
8550 13375	47		20.6			309.0	47			Maxim
8730 13675	48	18860	21.0		48500	310.1	48	321	5.0	Min. alt. wind s 45 m.p.s. or mo
8910 13975	49		21.3			309.0	49			Alt. of maximum wind speed (m.p.s.)
9090 14275	50	19720	21.6		49300	305.3	50	325	3.5	Dir. (degrees) c (m.p.s.) of Max.
										Max. alt. winds 45 m.p.s. or mo

Coded Data for Transmission

TP72403	05900	3313	2 3319	3418	4 3516	3413	6 3112	2916	8 2917
2920	0 2024	2 2924	4 3127	6 3334	8 3245	0 3045	3 3144	5 3144	1 3251
53252	0 3046	2 3154	5 3034	0 2827	3 2822	3 3110	7 1802	0 1102	8 0802
00802	50602								

Enter check if appear on reverse

59° N LONG. 77° 28' W
ELEVATION 360=S
5000' FEET ABOVE SEA LEVEL

U.S. DEPARTMENT OF COMMERCE
WEATHER BUREAU
WINDS-ALOFT COMPUTATION SHEET
(LANDSTATION FORM)
WBAN-20

	Year	Month	Day	Time
Actual time 1964 MAY 18 0000	1964	MAY	18	0000
Scheduled (G.M.T.) 1964 MAY 18 12	1964	MAY	18	12
Ascension No. 550				

Orientation, 360° = South

Rowin above surface (m.)	Elevation angle °		Distance from observation point (m.)	Azimuth angle °	Minute	Wind				
	Observed	Smoothed				Direction ° 360° = N.				
						sfc.	002, 11 -			
270	41.5		300	347.5	1	16	4.2			
530	46.4		500	157.7	2	38	5.1			
100	44.3		820	22.0	3	26	5.4			
170	43.8		1120	23.6	4	14	6.1			
230	41.9		1370	18.7	5	2	6.7			
250	40.6		1710	15.0	6	360	6.0			
290	39.6		2230	12.6	7	360	7.8			
320	37.9		2810	9.7	8	360	9.2			
3480	36.3		3350	8.0	9	354	11.0			
3750	33.5		4080	4.5	10	347	14.8			
4000	30.5		5050	0.7	11	341	16.7			
2260	28.9		5750	336.8	12	332	13.6			
3580	28.5		6530	353.9	13	332	10.3			
3870	28.4		7120	252.7	14	336	12.4			
4170	27.5		7910	351.0	15	340	17.0			
4470	26.0		7920	349.7	16	337	20.4			
4760	24.5		10170	347.3	17	327	21.0			
5000	23.4		11520	345.1	18	325	19.3			
5300	22.6		12600	343.4	19	327	20.8			
5600	21.9		13560	341.9	20	324	20.6			
5790	21.4		14360	340.5	21	323	18.5			
6140	20.9		16200	339.4	22	327	20.1			
6400	20.2		17300	338.7	23	331	22.3			
6700	19.65		18600	338.1	24	328	22.3			
7000	19.25		19900	337.4	25					
						336.7	23.3			
7620	18.60		22520	335.9	27					
						335.2	24.0			
8220	17.85		25300	334.3	29					
						333.9	27.2			
8820	17.05		28500	333.7	31					
						333.2	29.5			
9420	16.25		32000	332.6	33					
						332.2	27.0			
10000	15.65		35300	332.1	35					
						331.9	30.2			
10600	15.05		38400	331.7	37					
						331.6	27.8			
11200	14.65		41200	330.9	39					
						330.3	26.0			
11800	14.36		45300	330.2	41					
						330.1	30.5			
12400	13.99		49000	330.1	43					
						329.9	27.0			
13000	13.77		52000	329.5	45					
						329.1	21.3			
						328.7	17.3			
13600	13.34		54100	329.2	47					
						328.6	16.5			
14200	13.93		55000	328.6	48	307	16.5			
						328.1				
14800	14.00		55900	328.6	49					
						328.3				
15200	14.03		56900	328.3	50	298	13.7			

Coded Data for Transmission

-07	20410	0311	40112	3613	63613	3617	83620
120	43432	62240	83313	03233	53334	53246	03257
303	03026	33123	0				
	02912	03507	00536	00802	00802	30802	D

Rawinsonde Time-Altitude Data				
Contact	Pressure (mb.)	Altitude (m., m.s.l.)	Elapsed time (min.)	
5	1010	120	0.5	
10	979	720	2.3	
15	932	1330	4.7	
20	869	1960	6.7	
25	779	2600	7.2	
30	697	3180	11.6	
35	636	3950	13.7	
40	554	4580	16.1	
45	486	5250	18.1	
50	428	5780	21.0	
55	364	6660	23.7	
60	300	7450	26.2	
65	262	8150	28.7	
70	226	8900	31.1	
75	203	9700	33.7	
80	260	10450	36.5	
85	229	11280	39.0	
90	200	12110	41.6	
95	175	12910	44.7	
100	152	13780	47.2	
105	131	14770	50.0	
110	111	15800	51.0	
115	93	16850	57.5	
120	77	18020	61.2	
125	62	19380	65.2	
130	49	20880	69.7	
135	36	22880	74.7	
140	22	25800	81.1	
145	10	31420	92.0	
MS.1	9	32151	93.6	

Punched Card Data

Altitude #	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude #	Direction (degrees)	Speed (m.p.s.)	Card columns
Card No. 1						Card No. 2	
	Type of equipment	8</td					

*Identification WASHINGTON, D. C. (STERLING, V.A.) LAT. $38^{\circ} 59' N$ LONG. $77^{\circ} 28' W$ RAWIN WBAN-20 ORIENTATION 360° S OBSERVATION POINT 16 meters ABOVE SEA LEVEL								U.S. DEPARTMENT OF COMMERCE WEATHER BUREAU WINDS-ALOFT COMPUTATION SHEET (LANDSTATION FORM) WBAN-20			

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.)	Rowin ht. above surface (m.)	Elevation angle $^{\circ}$		Distance from observation point (m.)	Azimuth angle $^{\circ}$	Orientation, 360° South		Cor tac
			Observed	Smoothed			Minute	Direction $^{\circ}$ 360 $=$ N.	
			30 90m	100 90m	Second	Second	sfc.	Ob.	
216 350	1	270	41.5		300	347.5	1	16	4.2
414 670	2	530	46.4		500	157.7	2	38	5.1
612 980	3	100	44.3		820	22.0	3	26	5.4
801 1285	4	1090	43.8		1100	23.6	4	14	6.1
990 1585	5	1380	41.9		1370	18.7	5	2	6.7
1170 1880	6	1650	40.6		1710	15.0	6	360	6.0
1350 2170	7	1920	39.6		2030	12.6	7	360	7.8
1530 2455	8	2200	37.9		2310	9.7	8	360	9.2
1710 2740	9	2480	36.3		3350	8.0	9	354	11.6
1890 3020	10	2750	33.5		4080	4.5	10	347	14.8
2070 3300	11	5000	30.5		5250	0.7	11	341	16.7
2250 3580	12	5260	28.9		5750	336.8	12	332	13.6
2430 3855	13	3560	28.5		6530	353.9	13	332	10.3
2610 4130	14	3870	28.4		7100	352.7	14	336	12.4
2790 4405	15	4170	27.5		7810	351.0	15	340	17.0
2970 4675	16	4470	26.0		7100	349.7	16	337	20.4
3150 4945	17	4760	24.5		101700	347.3	17	327	21.0
3330 5215	18	5000	23.4		11530	345.1	18	325	19.3
3510 5485	19	5300	22.6		12600	343.4	19	327	20.8
3690 5755	20	5600	21.9		13500	341.9	20	324	20.6
3870 6025	21	5890	21.4		14700	340.5	21	323	18.5
4050 6295	22	6140	20.9		16200	339.4	22	327	20.1
4230 6565	23	6400	20.2		17300	338.7	23	321	22.3
4410 6835	24	6700	19.6		18600	338.1	24	328	22.3
4590 7105	25	7000	19.25		19900	337.4	25		
4770 7375	26		18.95			336.7	26	325	23.3
4950 7645	27	7620	18.60		22500	335.9	27		
5130 7915	28		18.20			335.2	28	322	24.0
5310 8185	29	8220	17.85		25300	334.3	29		
5490 8455	30		17.50			333.9	30	328	27.2
5670 8730	31	8820	17.05		28500	333.7	31		
5850 9005	32		16.60			333.2	32	323	29.5
6030 9285	33	9420	16.25		32000	332.6	33		
6210 9565	34		15.90			332.2	34	327	27.0
6390 9850	35	10000	15.65		35300	332.1	35		
6570 10135	36		15.35			331.9	36	327	30.2
6750 10420	37	10600	15.05		38900	331.7	37		
6930 10710	38		14.87			331.6	38	323	27.9
7110 11105	39	11200	14.65		41200	330.9	39		
7290 11300	40		14.49			330.3	40	323	26.0
7470 11595	41	11800	14.36		45300	330.2	41		
7650 11890	42		14.16			330.1	42	326	30.5
7830 12185	43	12400	13.99		49000	330.1	43		
8010 12480	44		13.83			329.9	44	320	27.0
8190 12775	45	13000	13.79		52000	329.5	45		
8370 13075	46		13.76			329.1	46	321	17.3
8550 13375	47	13600	13.74		54100	329.2	47		
8730 13675	48	13900	13.73		55000	328.6	48	307	16.5
8910 13975	49	14200	14.00		55900	328.6	49		
9090 14275	50	14500	14.03		56900	328.3	50	293	13.7

Coded Data for Transmission

PP7242	14150	0207	20410	0311	40112	3613	6 3613	3617	8 3620
3527	03412	23320	43432	6 2240	83240	0 3233	5 33340	5 3245	0 3257
53358	03357	53033	03026	731230					
551172	10311911	99516	02912	03507	0 0506	0 0802	0 0802	3 0802	D

Lat. $58^{\circ} 59' N$ Long. $77^{\circ} 28' W$
Azimuth 360=S
1000 Meters above sea level

U.S. DEPARTMENT OF COMMERCE
WEATHER BUREAU
WINDS-ALOFT COMPUTATION SHEET
(LANDSTATION FORM)
WBAN-20

	Year	Month	Day	Time
Actual time at mer.	1904	Mar	10	1221
Scheduled (G.M.T.)	1904	Mar	10	1200
Ascension No.	551			

Orientation, 360° South

Min.	Rowin ht. above surface (m.)	Elevation angle $^{\circ}$		Distance from observation point (m.)	Azimuth angle $^{\circ}$	Minute	Wind	
		Observed	Smoothed				sfc.	Direction $^{\circ}$ 360 = N.
1	350	50.7		2800	3257.8	1	318	5.0
2	900	51.4		6000	318.2	2	302	5.0
3	1400	58.2		8700	310.5	3	306	5.5
4	1890	55.8		12800	311.5	4	326	7.0
5	2240	52.6		17000	318.1	5	375	10.2
6	2590	46.6		24500	323.3	6	337	12.0
7	2940	43.2		31000	326.4	7	339	10.7
8	3270	41.7		36600	328.5	8	344	10.7
9	3670	39.8		47100	322.0	9	343	12.1
10	4080	38.3		58000	332.5	10	343	12.8
11	4530	37.7		59300	334.6	11	349	14.5
12	4900	35.8		18000	336.9	12	345	17.5
13	5300	33.7		80000	337.1	13	335	18.0
14	5700	32.6		90000	336.7	14	332	15.5
15	6100	31.6		99000	336.2	15	332	16.0
16	6500	30.9		109000	335.9	16	332	15.7
17	6900	30.3		118000	335.5	17		
18		29.6			334.2	18	323	18.0
19	7710	28.8		140000	333.5	19		
20		27.9			332.8	20	327	20.7
21	8400	27.0		165000	332.6	21		
22		26.2			332.6	22	326	20.9
23	9040	25.3		190000	331.8	23		
24		24.1			331.8	24	333	24.0
25	9790	23.9		219000	332.1	25		
26		23.5			332.1	26	334	21.0
27	10610	23.3		245000	272.3	27		
28		22.9			332.6	28	337	334
29	11440	21.6		285000	333.0	29		
30		21.2			333.5	30	344	30.0
31	12240	20.6		323000	334.3	31		
32		20.6			334.5	32	325	18.0
33	13070	20.6		345000	333.8	33		
34	13550	20.6		356000	283.5	34	312	14.0
35	13990	20.9		365000	332.4	35		
36	14430	21.2		368000	331.0	36	301	16.0
37		21.2			330.2	37		
38	15400	21.3		391000	329.7	38	309	16.0
39		21.5			329.0	39		
40	16370	21.8		403000	318.8	40	305	10.0
41		22.2			318.1	41		
42	17220	22.5		413000	318.0	42	309	10.0
43		22.5			328.0	43		
44	18280	22.9		412750	317.6	44	303	8.0
45		23.2			327.0	45		
46	19260	23.6		413500	326.7	46	300	6.0
47		23.0			326.8	47		
48	20150	24.3		412300	316.6	48	316	4.0
49		25.1			326.5	49		
50	21100	25.2		405000	326.5	50	113	2.4

1162 34065 Coded Data for Transmission

3207	2	3210	3110	43010	3111	63212	3315	83421
3423	4	3425	63532	83334	03331	33332	53236	03344
3447	5	3428	03131	33122	03016	73507	01104	81104

Rawinsonde Time-Altitude Data				
Contact	Pressure (mb.)	Altitude (m., m.s.l.)	Elapsed time (min.)	
5	1011	100	0.1	
10	936	750	1.6	
15	866	1380	2.8	
20	800	2060	4.4	
25	736	2730	6.4	
30	676	3410	8.2	
35	620	4100	9.9	
40	564	4550	11.9	
45	516	5550	13.7	
50	468	6290	15.5	
55	423	7040	17.4	
60	380	7510	19.3	
65	342	8570	21.4	
70	305	9310	23.2	
75	272	10140	25.8	
80	240	10970	27.9	
85	211	11780	30.7	
90	184	12640	32.0	
95	161	13410	34.0	
100	138	14380	35.9	
105	113	15350	37.8	
110	100	16390	39.5	
115	84	17490	42.1	
120	70	18640	44.7	
125	55	20140	47.8	
130	41	21890	51.6	
135	30	24060	57.5	
140	1'			
1874	25	25260	59.4	

Punched Card Data				
Altitude #	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude #
Card No. 1	15	16	15	Card No. 2
Type of equipment	8	16	Type of equipment	5
sfc.	310	4	17-21	7 328 17
150 M.	314	5	22-26	8 326 20
300 M.	317	5	27-31	9 330 22
0.5	319	5	32-36	10 334 22
1.0	302	5	37-41	11 336 33
1.5	306	5	42-46	12 341 28
2.0	324	7	47-51	13 320 16
2.5	335	11	52-56	14 308 15
3	340	10	57-61	15 305 16
4	344	12	62-66	16 308 12

*Identification
WASHINGTON, D. C.
(STERLING, VA.) LAT. 38° 39' N LONG. 77° 28' W
RAWIN WEAR-CO ORIENTATION 360=S
OBSERVATION POINT 83 METERS ABOVE SEA LEVEL

U.S. DEPARTMENT OF COMMERCE
WEATHER BUREAU
WINDS-ALOFT COMPUTATION SHEET
(LANDSTATION FORM)
WBAN-20

Actual time
in hrs.
Scheduled (G.M.T.)
Ascension No. 55

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.)	Rawin ht. above surface (m.)	Elevation angle °		Distance from observation point (m.)	Azimuth angle °	Wind		Rawinsonde Contact	Pressure (mb.)
			Observed	Smoothed			Direction ° 360°=N.	Speed (m.p.s.)		
216 350	1	350	50.7		280	325.8	1	318	5.0	5 1011
414 670	2	900	51.4		600	314.2	2	302	5.0	10 936
612 980	3	1400	58.2		870	310.5	3	306	5.5	15 866
801 1285	4	1890	55.8		1280	311.5	4	326	7.0	20 800
990 1585	5	2240	52.6		1700	318.1	5	335	10.2	25 736
1170 1880	6	2590	46.6		2450	323.3	6	337	12.0	30 676
1350 2170	7	2940	43.2		3100	326.4	7	339	10.7	35 620
1530 2455	8	3290	41.7		3660	328.5	8	344	10.7	40 564
1710 2740	9	3670	39.8		4770	322.0	9	343	12.1	45 516
1890 3020	10	4080	38.3		5100	332.5	10	343	12.8	50 468
2070 3300	11	4500	37.7		5900	334.6	11	349	14.5	55 423
2250 3580	12	4900	35.8		6800	331.9	12	345	17.5	60 380
2430 3855	13	5300	33.7		8000	337.1	13	335	18.0	65 342
2610 4130	14	5700	32.6		9000	336.7	14	332	15.5	70 305
2790 4405	15	6100	31.6		9900	336.8	15	332	16.0	75 272
2970 4675	16	6500	30.9		10900	335.9	16	332	15.7	80 240
3150 4945	17	6910	30.3		11800	335.5	17			85 211
3330 5215	18		29.6			2210	18	323	18.0	90 184
3510 5495	19	7210	28.9		14000	222.5	19			95 161
3690 5775	20		27.7			2210	20	327	20.7	100 121
3870 6055	21	7600	27.0		14000	222.6	21			105 111
4050 6235	22		26.2			2210	22	321	20.0	110 103
4230 6515	23	9040	25.3		10000	221.2	23			115 100
4410 6835	24		24.1			2210	24	332	21.0	120 70
4590 7105	25	9790	23.9		21900	221.1	25			125 55
4770 7375	26		23.5			2210	26	334	21.0	130 41
4950 7645	27	10610	23.3		24400	222.7	27			135 30
5130 7915	28		22.9			2210	28	337	23.0	140 1
5310 8185	29	11400	21.6		28500	323.0	29			
5490 8455	30		21.2			3335	30	344	30.0	
5670 8730	31	12200	20.6		32300	334.3	31			
5850 9005	32		20.6			334.5	32	325	18.0	
6030 9285	33	13070	20.6		34500	333.8	33			
6210 9565	34	13550	20.6		35500	333.0	34	312	14.0	
6390 9850	35	13990	20.9		36500	332.4	35			
6570 10135	36	14430	21.2		36800	331.0	36	301	16.0	
6750 10420	37		21.2			330.2	37			
6930 10710	38	15410	21.3		39000	339.7	38	309	16.0	
7110 11005	39		21.5			335.0	39			
7290 11300	40	16390	21.8		40000	338.8	40	305	16.0	
7470 11595	41		22.2			338.1	41			
7650 11890	42	17320	22.5		41500	338.0	42	309	16.0	
7830 12185	43		22.5			338.4	43			
8010 12480	44	18280	22.9		40700	337.6	44	303	8.0	
8190 12775	45		23.2			339.2	45			
8370 13075	46	19230	23.6		43500	336.7	46	300	6.0	
8550 13375	47		23.0			326.8	47			
8730 13675	48	20150	24.3		44200	336.6	48	316	4.0	
8910 13975	49		25.1			336.5	49			
9090 14275	50	21100	25.2		44500	336.5	50	113	2.4	

1417 72403 1000 10362 34065 Coded Data for Transmission

PD 72403	17971	3207	2 3210	3 3110	4 3010	3111	6 3212	3315	8 3421
7022	0 3020	2 3423	4 3425	6 3532	8 2334	0 3331	3 3332	5 3236	10 3344
53452	73043	0 3449	5 3128	0 3131	3 3122	0 3016	7 3507	0 1104	8 1104
0 1104	11104	0 0							

Altitude #	Direction Degrees	Sp
Card No. 1		
Type of equipment	0	
sfc.	310	4
150 M.	314	5
300 M.	317	5
0.5	319	5
1.0	302	5
1.5	306	5
2.0	324	7
2.5	335	11
3	340	11
4	344	1
5	345	1
6	333	1

Maxima
Min. alt. wind s:
45 m.p.s. or mor
Alt. of maximum wind speed (m.)
Dir. (degrees) at (m.p.s.) of Max.
Max. alt. wind s:
45 m.p.s. or mor
Enter check if appear on reverse

2.38° 59' N LONG. 77° 28' W
ELEVATION 360=S
13 ECTONS ABOVE SEA LEVEL

U.S. DEPARTMENT OF COMMERCE
WEATHER BUREAU
WINDS-ALOFT COMPUTATION SHEET
(LANDSTATION FORM)
WBAN-20

	Year	Month	Day	Time
Actual time 7th mer.	1964	MAY	18	1800
Scheduled (G.M.T.)	1964	MAY	19	00
Ascension No. 552				

Orientation, 360° = South

Rowin ht. above surface (m.)	Elevation angle °		Distance from observation point (m.)	Azimuth angle °	Minute M	Wind				
	Observed	Smoothed				Direction °	Speed (m.p.s.)			
						360° = N. stc. —	CALM			
1 270	69.5		100	12.9	1	347	2.1			
2 540	66.6		230	347.4	2	327	3.0			
3 860	63.8		420	337.6	3	320	3.4			
4 1120	60.3		640	332.4	4	320	4.6			
5 1400	56.2		980	328.1	5	320	5.6			
6 1660	52.5		1300	325.3	6	313	7.0			
7 1920	48.0		1800	320.9	7	302	7.3			
8 2180	44.5		2200	317.3	8	306	8.4			
9 2440	41.0		2800	315.5	9	325	10.3			
10 2720	38.6		3400	320.0	10	346	10.2			
11 2980	37.3		3900	324.5	11	348	11.0			
12 3280	35.9		4600	327.6	12	342	12.0			
13 3600	32.8		5300	329.4	13	326	12.5			
14 3900	32.8		6100	327.4	14	307	9.6			
15 4180	32.6		6500	325.6	15	308	8.4			
16 4470	32.2		7100	324.5	16	313	11.2			
17 4760	31.0		7800	327.9	17	315	13.6			
18 5060	29.8		8800	322.4	18	313	16.0			
19 5360	28.8		9700	321.6	19	312	16.0			
20 5660	28.0		10600	323.0	20	313	15.0			
21 5930	27.3		11500	320.2	21	313	13.0			
22 6220	26.8		12200	319.8	22	313	14.0			
23 6530	26.2		13200	319.3	23	313	17.0			
24 6840	25.6		14200	315.7	24	317	15.8			
25 7160	25.3		15100	313.1	25					
26 —	25.0		—	320.0	26	332	14.8			
27 7840	24.8		16900	320.5	27					
28	24.4			320.8	28	324	12.4			
29 8310	24.2		18400	320.5	29					
30	24.1			320.7	30	325	11.0			
31 8820	24.0		19700	320.7	31					
32	24.0			320.7	32	332	11.0			
33 9440	24.0		21100	321.4	33					
34	24.2			322.1	34	340	11.5			
35 10120	24.2		22300	322.7	35					
36	24.2			323.1	36	334	14.0			
37 10730	24.0		24000	323.4	37					
38	23.9			323.8	38	340	15.0			
39 11340	22.6		25700	324.8	39					
40	23.3			326.4	40	355	21.0			
41 11950	23.0		27900	327.8	41					
42	22.7			329.0	42	357	20.0			
43 12600	22.6		30000	329.7	43					
44	22.5			330.0	44	324	16.0			
45 13200	22.3		31900	329.6	45					
46	22.0			329.6	46	314	17.0			
47 13800	21.9		34000	328.6	47					
48 14110	21.7		35100	327.7	48	304	15.0			
49 14410	21.6		36170	327.0	49					
50 14730	21.4		37200	326.4	50	313	13.4			

Coded Data for Transmission

3503	23306	3208	3210	3212	3116	3017	3219
23324	43117	63227	83131	03126	23323	53329	03322
4053133	03230	332240					
13711	73116	03418	60302	03404	00314	703150	10

Con- tact	Pressure (mb.)	Altitude (m., m.s.l.)	Elapsed time (min.)
5	1010	100	0.1
10	938	730	2.4
15	870	1380	4.7
20	806	2030	7.1
25	746	2670	9.4
30	687	3330	11.8
35	632	4000	14.2
40	580	4680	16.6
45	532	5350	19.1
50	484	6100	21.5
55	440	6800	23.7
60	399	7560	25.9
65	360	8260	28.8
70	324	9000	31.6
75	288	9800	33.7
80	256	10600	36.5
85	227	11410	38.7
90	200	12200	41.5
95	175	13020	44.1
100	152	13860	46.9
105	130	14810	49.9
110	111	15800	53.1
115	94	16830	56.5
120	78	17910	60.0
125	64	19220	64.2
130	50	20780	68.6
135	35	23100	74.4
140	21	26400	82.4
1420=15 28670			

Punched Card Data

Altitude (m.)	Direction (degrees)	Speed (m.p.s.)	Card columns	Altitude (m.)	Direction (degrees)	Speed (m.p.s.)		
Card No. 1						Card No. 2		
Type of equipment	8	16	Type of equipment					
stc.	0	0	17-	21	7	319	16,	
150 M.	347	1	22-	26	8	326	13	
300 M.	342	2	27-	31	9	323	11	
0.5	334	3	32-	36	10	340	12	
1.0	321	4	37-	41	11	340	15	
1.5	318	6	42-	46	12	356	21	
2.0	302	8	47-	51	13	324	16	
2.								

Identification No. D. C.

(STIRLING, V.I.) LAT. $33^{\circ} 59' N$ LONG. $77^{\circ} 28' W$
RADIO WAVE NO. ORIENTATION 360=S
OBSERVATION ALT. 163 meters ABOVE SEA LEVEL

U.S. DEPARTMENT OF COMMERCE

WEATHER BUREAU

WINDS-ALOFT COMPUTATION SHEET
(LANDSTATION FORM)

WBAN-20

	Year
Actual time 10:15 a.m.	1964
Scheduled (G.M.T.)	1964
Ascension No.	512

Page

1

Type of balloon 60 =

Slant range (m.) (yds.)	Pibal ht. above sfc. (m.) 30 gram 100 gram	Rawin ht. above surface (m.)	Elevation angle °		Distance from observation point (m.)	Azimuth angle °	Wind		Rawinsonde
			Observed	Smoothed			Minute	Direction ° 360° = N.	
216	1	270	69.5		100	12.9	1	347	21.1
350					230	347.4	2	327	3.0
414	2	540	66.6		420	337.6	3	320	3.4
670					640	332.4	4	320	4.6
612	3	860	63.8		980	328.1	5	320	5.6
980					1300	325.3	6	313	7.0
801	4	1120	60.3		1800	320.9	7	302	7.3
1285					2200	317.3	8	306	8.4
990	5	1400	56.2		2800	315.5	9	325	10.3
1585					3400	320.0	10	346	10.2
1170	6	1660	52.5		3900	324.5	11	348	11.0
1880					4600	327.6	12	342	12.0
1350	7	1920	48.0		5300	329.4	13	326	12.5
2170					6100	327.4	14	307	9.6
1830	8	2180	44.5		6500	325.6	15	308	9.4
2455					7100	324.5	16	313	11.2
1710	9	2440	41.0		7800	322.9	17	315	13.3
2740					8800	322.4	18	313	16.0
1890	10	2720	38.6		9700	321.4	19	312	16.0
3020					10600	320.3	20	313	15.0
2070	11	2980	37.3		11500	320.2	21	313	13.0
3300					12200	319.8	22	313	14.0
2280	12	3280	35.9		13200	319.3	23	313	17.0
3580					14200	315.7	24	317	15.8
2430	13	3600	32.8		15100	313.1	25		
3855					—	320.0	26	332	14.8
2610	14	3900	32.8		16900	320.5	27		
4130					—	320.8	28	324	12.4
2790	15	4180	32.6		—	320.5			
4405					7800	322.9			
2970	16	4470	32.2		8800	322.4			
4675					9700	321.4			
3160	17	4760	31.0		10600	320.3			
4945					11500	320.2			
3330	18	5060	29.3		12200	319.8			
5215					13200	319.3			
3510	19	5360	28.8		14200	315.7			
5485					15100	313.1			
3690	20	5660	28.0		—	320.0			
5870					16900	320.5			
6025	21	5930	27.3		—	320.8			
4050					18400	320.5			
6295	22	6220	26.8		19700	320.7			
4230					21100	321.4			
6565	23	6530	26.2		22300	322.7			
4410					24000	323.4			
6835	24	6840	25.6		—	323.8			
4590					25700	324.8			
7105	25	7160	25.3		27900	324.8			
4770					30000	325.4			
7375	26	—	25.0		—	323.7			
4950					31900	324.0			
7645	27	7840	24.8		—	324.7			
5190					34000	324.7			
7915	28	—	24.4		—	325.4			
5310					35700	325.4			
8185	29	8310	24.2		—	326.1			
5490					38400	326.1			
8455	30	—	24.1		—	326.7			
5670					40100	327.4			
8730	31	8820	24.0		—	327.4			
5850					41800	327.4			
9005	32	—	24.0		—	328.1			
6030					43500	328.1			
9285	33	9440	24.0		—	328.7			
6210					45200	329.4			
9565	34	—	24.2		—	329.4			
6390					47900	329.4			
9850	35	10120	24.2		—	330.1			
6570					49600	330.1			
10135	36	—	24.2		—	334.4			
6750					51300	334.4			
10420	37	10730	24.0		—	334.4			
6930					53000	334.4			
10710	38	—	23.9		—	334.4			
7110					54700	334.4			
11005	39	11340	23.6		—	334.4			
7290					56400	334.4			
11300	40	—	23.3		—	334.4			
7470					58100	334.4			
11595	41	11950	23.0		—	334.4			
7650					60800	334.4			
11890	42	—	22.7		—	334.4			
7830					62500	334.4			
12185	43	12600	22.6		—	334.4			
8010					64200	334.4			
12480	44	—	22.5		—	334.4			
8190					65900	334.4			
12775	45	13200	22.3		—	334.4			
8370					67600	334.4			
13075	46	—	22.0		—	334.4			
8550		</							

(2) 50 DEGREES ABOVE HORIZON -- APPROX 1 DIAMETER OF MOON
SOUTH OF MOON, S 30, CLOCK POSITION.

(3) 50 DEGREES ABOVE HORIZON -- APPROX 3 DIAMETERS OF MOON
WEST OF 12 O,CLOCK POSITION.

(4) OBJECT OBSERVED AT 3 O,CLOCK POSITION OF MOON --
GRADUALLY MOVED AROUND MOON TO 12 OCLOCK POSITION. THIS
MOVEMENT TOOK APPROXIMATELY 15 MINUTES. THEN RATE OF MOVE-
MENT INCREASED AND OBJECT MOVED TOWARD WEST, 12 TO 15 DIA-
METERS OF MOON. THIS MOVEMENT REQUIRED APPROXIMATELY ONE
MINUTE.

(5) OBJECT BEGAN TO GROW DIM AND THEN SPLIT IN TWO,
BOTH OBJECT REMAINED DIM AND A YELLOWISH-GRAY CLOUD
FORMED. OBJECTS THEN HAD TO BE OBSERVED WITH BINOCULARS
AND ONLY ONE OBJECT FOLLOWED. OBJECT SPLIT IN TWO AGAIN
AND GRADUALLY FADED OUT OF SIGHT.

(6) APPROXIMATELY 17 MINUTES.

C. (1) GROUND VISUAL.

(2) BINOCULARS.

PAGE 3 RUEAGL 151 UNCLAS

(3) N/A.

D. (1) 19/0015Z, MAY 64.

(2) DUSK, SUN SETTING.

E. 77 07 WEST; 38 43 NORTH -- APPROXIMATELY 1 MILE WEST OF
MOUNT VERNON ESTATES, VIRGINIA.

F. MR. [REDACTED] DRIVE, ALEXANDRIA, VA.

CIVIL ENGINEER WITH GIMRADA, FORT BELVOIR, VA. SOUNDED
RELIABLE.

G. (1) HIGH, THIN, BROKEN; VISIBILITY 10 72/57 CALM/014

(2) PIBAL. SFC - 2611; 6M - 2711; 10M - 3216; 16M - 3020;

20M - 3023; 30M - 3223; 50M - 3127; 80M -. NOT AVAILABLE.

18 May Dusk

1915 Clock

Check Hoelomar for Queen
MOUNT VERNON, VIRGINIA

20 MAY 64 00 19z

NNNN

SQW004WPA002CZCSQA517ZCJYX435

PP RUCDSQ

DE RUEAGL 151 19/2114Z

ZNR

P 192113Z

FM 1001 ABW ANDREWS AFB MD

TO RUEASN/26 ADIV HANCOCK FLD NY

RUCDSQ/AFSC FTD WPAFB OHIO

ZEN/CSAF WASHDC

ZEN/OSAF WASHDC

BT

UNCLAS 1001 AB WG (DOOT) 19-E-115. CSAF FOR AFNIN. OSAF FOR
SAFOI. UFO. REFERENCE PARA 14, AFR 200-2.

A. (1) OVAL.

(2) HEAD OF A PIN.

(3) WHITE GLOW, BRIGHTER THAN THE BRIGHTEST STAR.

(4) ONE.

(5) N/A.

(6) N/A.

(7) NONE.

(8) NONE.

PRIORITY

~~1-5 E(UFO)~~

1-5 E(UFO)

PAGE 2 RUEAGL 151 UNCLAS

(9) NONE

B. (1) VISUAL SIGHTING.

(3) UNLIMITED.

(4) 10 MILES.

(5) THIN, BROKEN, CLOUDS TRANSPARENT.

(6) NONE.

(7) STRONG SUBSIDENCE 780 MBS, APPROXIMATELY 7,000 FT.

QUASI STABLE GRADIENT 780 MBS TO TROPOPAUSE. AVERAGE TEMPERATURE, SFC TO TROPOPAUSE ABOVE STANDARD LAPSE RATE ABOUT PLUS 60 DEGREE C.

H. NO UNUSUAL METEOROLOGICAL CONDITIONS EXISTED AT THIS

PAGE 4 RUEAGL 151 UNCLAS

TIME.

I. NONE.

J. NONE.

K. CAPT WILLIAM W. MCLEAN, ASST BASE OPS OFFICER, ANDREWS AFB, WASHINGTON, DC 20331. INFORMATION INDICATES IT MIGHT HAVE BEEN A MISSILE SIGHTING WITH SEPARATION OF VARIOUS STAGES. HOWEVER, NO CONTRAIL WAS EVIDENCED AND MR. MEYER WAS SPECIFICALLY ASKED THIS QUESTION.

L. NONE.

BT

NNNN

3

Washington, D.C., QTRFS.

(Sterling, Va.)

STATION

DATE

1964 MAY 18

U.S. DEPARTMENT OF COMMERCE - WEATHER BUREAU

SURFACE WEATHER OBSERVATIONS

Visibility (Statute Miles)		Weather and obstructions to vision	Sea level press. (Mbas.)	Temp. (°F)	Dew pt (°F)	Wind			Altim- eter set- ting (In.)	Remarks and supplemental coded data			Obser- vers initials
Surface (4)	Tower (4a)					Direction (9)	Speed (Kts) (10)	Character and shifts (11)		(13)	(14a)	(14b)	
18	F	187	56	56	00	00			007	F6/ 303	821		HLC
6	GF	192	58	58	35	07			018				SG
6	FF	194	58	57	35	08			009				SG
5	FF	203	54	54	00	00			011	212			SG
5	GF	211	51	51	00	00			014				SG
7		216	52	52	00	00			015				SG
12		224	61	57	00	00			018	224	51		E14
15		231	66	58	00	00			020				E14
15+		233	72	52	01	07			021				E14
15+		233	74	53	36	04			021	108			E14
15+		231	77	53	28	07			020				E14
15+		227	79	54	34	10			019				E14
15+		224	80	53	29	07			018	708	1101	51	E14
15+		223	81	48	33	05			018				TP
15+		220	83	47	36	07			016				TP
15+		216	83	48	36	05			015	710	1100		TP
15+		215	83	54	36	05			015				TP
15+		213	81	60	00	00			014				TP
15+		214	72	60	00	00			015	500	1005	83	TP
12		211	66	61	00	00			016				HLC
12		223	61	59	00	00			018				HLC
12		226	60	57	60	00			019	114	1006		HLC
12		226	60	57	00	00			019				HLC
15		226	57	56	00	00			019				HLC

Washington, D.C.,
(Sterling, Va.)

STATION

(Starling, Va.)

DATE

1964 MAY

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

SURFACE WEATHER OBSERVATIONS

Washington, D.C., 01000

DATE 1964 MAY 18

STATION (SYNTHETIC)

REL. HUMIDITY (%)	TOTAL SKY COVER	CLOUDS AND OBSCURING PHENOMENA												TOTAL OPAQUE SKY COVER	PRESSURE TENDENCY	NET 3-HR. CHANGE	SUN- SHINE (MINUTES)	PRECIP- TATION (INCHES)
		LOWEST LAYER			SECOND LAYER			SUMMA- TION TOTAL	THIRD LAYER			SUMMA- TION TOTAL	FOURTH LAYER					
AMT.	TYPE & DIR.	HEIGHT	AMT.	TYPE & DIR.	HEIGHT	AMT.	TYPE & DIR.	HEIGHT	AMT.	TYPE & DIR.	HEIGHT	AMT.	TYPE & DIR.	HEIGHT	AMT.	TYPE & DIR.	HEIGHT	AMT.
66	F	-0				60			60			6	3	010				
00		0				00			00			0						
00		0				00			00			0						
00		0				00			00			0	2	035				
00		0				00			00			0						
00		0				00			00			0						
00		0				00			00			0	2	070				
00		0				00			00			0						
00		0				00			00			0						
00		0				00			00			0	1	100				
00		0				00			00			0						
21	Cu	40	1	Ci	/	20			20			1						
41	Cu	40	3	Ci	/	40			40			1	7	025				
33	Cu	40	0			30			30			3						
22	Cu	40	0			20			20			2						
11	Cu	40	0			10			10			1	7	030				
10	Cu	40	1	Ci	/	10			10			0						
00		0				00			00			0						
44	Ci	1	0			40			40			1	000					
66	Ci	1	0			60			60			2						
88	Ci	1	0			80			80			3						
88	Pi	1	0			80			80			3	040					
66	Ci	1	0			60			60			3						
44	CS	1	0			40			40			2						

SYNOPTIC OBSERVATIONS

OW PTH S)	MAX. TEMP. (°F.)	MIN. TEMP. (°F.)	HGT. 850 MB. SURFACE	STATE OF GRND.	SEA STATE & DIR.	SWELL HGT. & DIR.	SWELL PERIOD	SURF Hs, Hs, M, P, Ds	WATER TEMP.	SOIL TEMP.			STATION PRESSURE COMPUTATIONS				
													TIME (L.S.T.) 60	3055	0655	1205	1805
58	56												ATT. THERM. 60	-	-	-	
70	56												OBSRVD. BAR. 61	1008.6	1012.2	1012.2	1011.3
61	51												TOTAL CORR. 62	-	-	-	
50	61												STA. PRESS. 63	29.785	29.890	29.890	29.860
83	72												BAROGRAPH 64	29.785	29.890	29.890	29.850
72	57												BAR. CORR. 65	±0	±0	±0	+0.010

OF DAY (MIDNIGHT TO MIDNIGHT)

OW PTH S)	PEAK GUST			THICK- NESS OF ICE ON WATER (INS.)	FROZEN GRND. LAYER (INS.)	RIVER GAGE	24-HR. MAX. R. H.	24-HR. MIN. R. H.	WA- TER EQUIV. (INS.)	PRECIP. & THDRSTM.	BEGAN	ENDED	DUR. 65 Hrs. Min.	OBSTR. TO VIS. 66	BEGAN	ENDED	DUR. 66 Hrs. Min.
	SPEED (KNOTS)	DIREC- TION	TIME L.S.T.														
71	72	73	74			75	76	77	78	79	80	81					
14	11	12	45										GF	CONT'D	0030		

PHENOMENA

Sunrise _____ Sunset _____
speed _____ m.p.h., or
p.h.; associated direction _____ and time: _____

15 20 30 45 60 80 100 120 150 180

WBAN 16-B
(10-1-58)

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

SURFACE WEATHER OBSERVATIONS

STATION Washington, D.C., 00000 DATE 1964 MAY 18

TIME (L.S.T.)	STATION PRESSURE (INS.)	DRY BULB (°F.)	WET BULB (°F.)	REL. HUMIDITY (%)	TOTAL SKY COVER	CLOUDS AND OBSCURING PHENOMENA												TOTAL OPAQUE SKY COVER	PRESSURE TENDENCY	
						LOWEST LAYER			SECOND LAYER			SUMMA- TION TOTAL	THIRD LAYER			SUMMA- TION TOTAL	FOURTH LAYER			
						AMT.	TYPE & DIR.	HEIGHT	AMT.	TYPE & DIR.	HEIGHT		AMT.	TYPE & DIR.	HEIGHT		AMT.	TYPE & DIR.	HEIGHT	
0055	29.785	56				6	6	F	-	0		6	0		6	0			6	3
0158	29.790	58				0	0		0		0	0	0	0	0	0	0	0	0	
0255	29.795	52				0	0		0		0	0	0	0	0	0	0	0	0	
0358	29.820	54				0	0		0		0	0	0	0	0	0	0	0	0	
0455	29.850	51				0	0		0		0	0	0	0	0	0	0	0	0	
0555	29.861	52				0	0		0		0	0	0	0	0	0	0	0	0	
0658	29.890	61				0	0		0		0	0	0	0	0	0	0	0	0	
0758	29.910	66				0	0		0		0	0	0	0	0	0	0	0	0	
0858	29.915	72				0	0		0		0	0	0	0	0	0	0	0	0	
0958	29.915	74				0	0		0		0	0	0	0	0	0	0	0	0	
1058	29.910	77				0	0		0		0	0	0	0	0	0	0	0	0	
1158	29.900	79				2	1	Cu	40	1	Ci	1	2	0	2	0	0	0	1	
1255	29.890	80				4	1	Cu	40	3	Ci	1	4	0	4	0	0	0	1	
1359	29.885	81				3	3	Cu	40	0		3	0	3	0	3	0	0	3	
1455	29.875	83				2	2	Cu	40	0		2	0	2	0	2	0	0	2	
1555	29.860	83				1	1	Cu	40	0		1	0	1	0	1	0	0	1	
1655	29.860	73				1	0	Cu	40	1	Ci	1	1	0	1	0	0	0	0	
1759	29.855	81				0	0		0		0	0	0	0	0	0	0	0	0	
1859	29.860	72				4	4	Ci	1	0		4	0	4	0	4	0	0	1	
1958	29.870	66				6	6	Ci	1	0		6	0	6	0	6	0	0	2	
2058	29.890	61				8	8	Ci	1	0		8	0	8	0	8	0	0	3	
2158	29.900	60				8	8	P.	1	0		8	0	8	0	8	0	0	3	
2256	29.900	60				6	6	Ci	1	0		6	0	6	0	6	0	0	3	
2355	29.900	57				4	4	CS	1	0		4	0	4	0	4	0	0	2	

SYNOPTIC OBSERVATIONS

TIME (G.C.T.)	TIME (L.S.T.)	NO.	PRECIP. (INS.)	SNOW DEPTH (INS.)	MAX. TEMP. (°F.)	MIN. TEMP. (°F.)	HTG. 850 MB. SURFACE	STATE OF GRND.	SEA STATE & DIR.	SWELL HGT. & DIR.	SWELL PERIOD	SURF H _o H _s M _o P _o D _o	WATER TEMP.	SOIL TEMP.			STATION PRESSURE			
																	TIME (L.S.T.)	59	0055	061
MID. TO 0055	X	0	0	X	58	56											ATT. THERM.	80	-	-
0055	1	0	0	0	70	56											OBSRVD. BAR.	61	1008.6	101.
0655	2	0	0	0	61	51											TOTAL CORR.	62	-	-
0255	3	0	0	0	80	61											STA. PRESS.	63	29.785	29..
1857	4	0	0	0	83	72											BAROGRAPH	64	29.785	29..
MID.	X	0	0	0	72	57											BAR. CORR.	65	±0	±

SUMMARY OF DAY (MIDNIGHT TO MIDNIGHT)

24-HR. MAX. TEMP. (°F.)	24-HR. MIN. TEMP. (°F.)	24-HR. PRECIP. WATER EQUIV. (INS.)	24-HR. SNOWFALL UNMLTD. (INS.)	SNOW DEPTH (INS.)	PEAK GUST			THICK- NESS OF ICE ON WATER (INS.)	FROZEN GRND. LAYER (INS.)	RIVER GAGE	24-HR. MAX. R. H.	24-HR. MIN. R. H.	WA- TER EQUIV. (INS.)	PRECIP. & THDRSTM.	BEGAN	ENDED	DUR. 85	OBSTR. TO VIS. 85	BL

Lat. $30^{\circ} 50' S$ Long. $77^{\circ} 28' W$ Orientation 360=S CLIM 35 meters above sea level				U.S. DEPARTMENT OF COMMERCE WEATHER BUREAU WINDS-ALOFT COMPUTATION SHEET (LANDSTATION FORM) WBAN-20				Year 1964 Month MAY Day 18 Time 0020 Actual time 7:00 a.m. Scheduled (G.M.T.) 1964 MAY 18 06 Ascension No. 549				
Min. M	Rowin ht. above surface (m.)	Orientation, 360°=South		Rawinsonde Time-Altitude Data								
		Elevation angle ° Observed	Smoothed	Distance from observation point (m.)	Azimuth angle °	Wind Direction ° 360°=N.	Speed (m.p.s.)	sfc.	(alm)	Pressure (mb.)	Altitude (m., m.s.l.)	Elapsed time (min.)
1	250	35.6		490	3072	1 320	9.5		1010	—		
2	700	31.3		1150	320.1	2 334	9.7		935	710	2.0	
3	1010	31.3		1650	326.5	3 345	8.7		712	1390	4.0	
4	1400	32.8		2160	332.3	4 344	6.8		713	2060	5.7	
5	1700	34.6		2450	332.0	5 308	1.0		734	2710	7.1	
6	2100	36.6		2870	326.5	6 286	8.1		574	3410	9.6	
7	2410	37.6		3200	3195	7 250	8.7		616	4140	11.4	
8	2800	37.2		3700	316.9	8 284	11.5		564	42810	13.2	
9	3160	26.2		4400	305.0	9 282	13.2		514	5510	15.1	
10	3520	35.2		5100	306.5	10 284	12.0		466	6270	16.9	
11	3900	33.7		5800	305.7	11 304	13.5		422	7000	18.7	
12	4300	32.8		6700	305.9	12 314	14.3		381	7720	20.7	
13	4700	32.1		7500	307.4	13 325	16.0		342	8500	22.6	
14	5100	31.0		8500	310.7	14 328	20.9		301	9290	24.5	
15	5500	27.0		9900	312.3	15 314	24.0		273	10040	26.6	
16	5900	274		11400	311.5	16 302	23.4		80	10820	28.6	
17	6250	26.2		12700	310.0	17 301	23.0		714	11610	30.7	
18	6700	25.5		14000	309.6	18 311	22.5		138	12400	32.7	
19	7080	24.7		15400	310.0	19			114	13280	34.7	
20		23.9			310.3	20 313	22.0		143	14130	37.0	
21	7810	23.2		18100	310.3	21			123	15090	39.2	
22		22.6			310.7	22 309	25.5		110	16100	41.3	
23	8610	22.0		21200	310.1	23			115	17140	43.5	
24		21.5			310.5	24 317	26.0		120	18330	46.5	
25	7470	21.2		24300	311.1	25			125	19680	49.0	
26		20.6			311.6	26 319	29.0		130	21110	53.1	
27	10170	20.0		27700	312.2	27			135	23200	58.1	
28		19.30			312.6	28 318	20.5		140	26360	65.2	
29	10900	19.05		31400	312.9	29						
30		18.70			3136	30 330	27.0		144	31370		
31	11660	18.50		34500	3144	31			145	33870		
32		18.35			3143	32 303	24.0		146	37000	65.8	
33	12420	18.25		37300	313.5	33						
34		17.80			312.5	34 309	28.0					
35	13220	17.70		40900	313.1	35						
36	13670	17.75		42200	312.5	36 304	18.0					
37	14070	17.90		43000	312.5	37						
38	14500	18.35		43500	312.0	38 284	14.0					
39		18.00			311.2	39						
40	14500	18.00		45300	310.5	40 255	12.8					
41		18.18			310.5	41						
42	16400	19.20		46500	310.0	42 276	17.5					
43		19.65			309.5	43						
44	17200	19.15		47300	305.0	44 281	6.5					
45		20.1			309.0	45						
46	18010	20.4		47800	309.0	46 313	5.0					
47		20.6			308.7	47						
48	18860	21.0		48500	312.1	48 321	5.0					
49		21.3			309.0	49						
50	19720	21.6		49300	305.3	50 325	3.5					

Coded Data for Transmission

13	2 3319	3418	4 3516	3413	6 3112	2916	8 2917	
2	3224	4 3127	6 3334	8 3245	0 3045	3 3144	5 3144	1 3251
23154	5 3034	0 2827	3 2822	2 3110	7 1802	0 1102	8 0802	

Altitude #	Direction (degrees)	Speed (m.p.s.)	Card columns	Punched Card Data		
				Card No. 1	15	Card No. 2
Type of equipment	8	16	Type of equipment	8		
sfc.	00	00	17-21	7	311	22
150 M.	320	5	22-26	8	311	24
300 M.	720	8	27-31	9	311	26
0.5	322	10	32-36	10	311	27
1.0	342	9	37-41	11	325	27
1.5	343	7	42-46	12	326	25
2.0	346	7	47-51	13	311	26
2.5	292	7	52-56	14	292	17
3	284	12	57-61	15	284	14
4	283	14	62-66	16	281	17
5	221	19	67-71	17	221	14
6	216	28	72-76	18	216	5

Min. alt. wind speed 45 m.p.s. or more (m.)	
Alt. of maximum wind speed (m.)	
Dir. (degrees) and speed (m.p.s.) of Max. wind	
Max. alt. wind speed 45 m.p.s. or more (m.)	
Enter check if additional levels appear on reverse side.	